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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|
|-----------------|-------------|----------------------|---------------------|

09/311,070    05/13/99    HIRAKATA

Y    0756-1971

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MM91/0615

EXAMINER

NGUYEN, D

ART UNIT

PAPER NUMBER

2871

DATE MAILED:

06/15/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
09/311,070

Applicant(s)  
Hirakata et al.

Examiner  
Dung Nguyen

Art Unit  
2871



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Mar 28, 2001
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 14-24 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 14-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some\* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_

Art Unit: 2871

***Response to Amendment***

Applicant's amendment dated 03/28/2001 has been received and entered.

***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the reflection area of the reflection layer being greater than electrode area of the pixel electrode must be shown or the feature(s) cancelled from the claim(s). No new matter should be entered.

***Specification***

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). As stated in the previous office action, the specification does not disclose the reflection area of the reflection layer being greater than electrode area of the pixel electrode. Correction is required.

Applicants pointed out such limitation being disclosed in figure 10 and accompanying text (paragraph bridging pages 17 and 18) (amendment, page 7). However, such paragraph does not support such contention.

Art Unit: 2871

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 5-7 and 14-23 stand rejected under 35 U.S.C. 102(b) as being anticipated by Masaya et al., JP 07-230101, as stated in the previous office action.

Although claims 5, 14, 17 and 22-23 are now amended, such amendment is not sufficient to overcome its rejection in the previous office action since the same is true of the Masaya et al. aluminum reflection layer (408) (see [139]). It should also be noted that the pixel electrode (410), the dielectric layer (409) and the electrode (407) will be formed an auxiliary capacitance that connected to the switching element through a contact hole (see figure 11).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., both a dielectric multi-layer film and a reflection layer comprising a metal material) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. *In re Van Guens*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Art Unit: 2871

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masaya et al., JP 07-230101, in view of Iwaki et al., US Patent No. 5,168,383.

Regarding the above claims, although Masaya et al. do not explicitly disclose a thickness of the pixel electrode being in the range of 50.5nm to 88.4nm, Iwaki et al. do disclose a thickness of the pixel electrode can be formed in the range 200 to 2000Å (col. 3, ln. 26). Thus, such disclosed range in Iwaki et al. makes possible the claimed range of 50.5nm to 88.4nm, and overlapping ranges are at least obvious. *In re Malagari*, 499 Fed.2d 1297, 182 USPQ 549 CCPA 1974.

8. Claim 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima et al., US Patent No. 6,108,056.

Regarding claims 24, Nakajima et al. disclose the claimed invention except for the use of aluminum (Al) based materials for the reflection layer. However, Nakajima et al. do disclose that other materials such as chromium or the like, can be used to form the reflection layer (116)(col. 13, ln. 50); and it is notoriously well known in the art that aluminum or alloy based material is one of such materials commonly used for a reflection layer in the liquid crystal display device.

Art Unit: 2871

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use an Al based material for a reflection layer since the Examiner takes Official Notice of the equivalent of using the aluminum material for their use in the reflection layer art and the selection of any of these known equivalents for reflecting light would be within the level of ordinary skill in the art. In addition, the use of one conventional material over another merely depends on the desire of the manufacturer and/or the availability and practicality of the material for the chosen manufacturing process.

***Allowable Subject Matter***

9. Claims 10-11 are allowed over prior art.

***Response to Arguments***

10. Applicant's arguments filed 03/28/2001 have been fully considered but they are not persuasive as stated above.
11. Applicant's arguments with respect to claims 1-4, 8-9 and 24 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

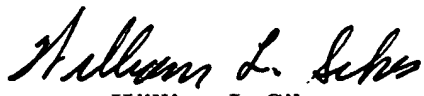
Art Unit: 2871

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dung Nguyen whose telephone number is (703) 305-0423.

DN  
06/12/2001

  
William L. Sikes  
Supervisory Patent Examiner  
Group 2871